



R*TIME Viewer New Features

Sciencetech

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R*TIME Viewer 4.6 New Features

- Web Display Converter
 - Display Builder Functions
 - Display Analyze
 - Display Convert



R*TIME Viewer 4.5 New Features

- Time Math
- Multi-Entity Send-to-Trend
- “Live” Poke Boxes
- Calendar Control Time Entry
- XY Trend Region Line Widths
- Leading Zeroes on Time Formats
- Client Watchdog Program
- Right Click Pop-up
- Trend Limit Line
- Excel Add-In New Functions
- Language Localization



Time Math

Four new operators in Display Calculations:

- Time Addition
- Time Subtraction
- Time Multiplication by scalar
- Time Remainder (modulo)



Time Math (cont.)

Using new operators:

- Each take two inputs
- All inputs, except second input into Time Multiplication, are assumed to be time values (integer seconds since 1970).
- Second input on Time Multiplication is assumed to be a floating value.
- Each operator returns a time value



Time Math (cont.)

Possible Uses:

- Time since Event (Time since Trip, etc.)
- Countdown to event.
- “Roper” trends.



Multi-Entity Send-to-Trend

Each entity now has the property of a selection state

- Select or de-select from the right-click pop-up menu.
- Highlighted on display
- When “Trend Driving Value” option used on a selected entity, all selected entities are scanned for points to send to a trend
- New MMI.INI settings for 8, 16, and 32 point default trends.



Live Poke Boxes

The Poke Box entity now has a new checkbox, making it “Live”.

- Performs the poke action each display update cycle (as defined in the display header).
- Normally used with poke ranges, with the default range having a poke action of “None”
- Still can be clicked for activation if on display.



Live Poke Boxes (cont.)

Possible Uses:

- Switching displays based on plant mode
- Activating an Action List to change points being trended when a subsystem is marked as unavailable.
- Forcing a display to the top of the window stack based on conditions.



Calendar Control

The Time Entry entity can now use a pop-up dialog box containing a standard Windows calendar control for time and date entry.

- Only used for absolute time entries
- Always available from the right-click pop-up menu
- New definition flag forces the calendar pop-up from the left-click , bypassing the text entry field



XY Trend Region Line Width

The width of the line used to draw an XY trend region can now be specified.

- Specified in pixels for the current trend definition size
- Scales with X axis of the display
- Center of wide line is placed at numerical location for the region line



Leading Zeroes in Time Formats

The Time Format page now contains a checkbox for putting leading zeroes in the day and month fields of date output strings and hour fields of time strings.

- Affects Time-Date, Scrolling Trend, and Time Input entities



Client Watchdog

A new program is provided that watches for lock-ups in the NetApp and MMI executables.

- Assumes only one instance of MMI.EXE is running on the workstation
- Can be configured to log MMI failures to the server
- Can be configured to attempt to close and restart the MMI program following detection of a failure



Right Click Pop-up

User Configurable Right Click Action

- Allow user configuration of a pop-up screen based on a right click
 - Large single point display
 - Trend
 - Point Info
 - Anything the user wants



Excel Add-In

Multiple changes to the R*TIME Excel Add-In

- Data Set Functions
 - Summarize each data set
 - Average
 - Summation
 - Difference



Excel Add-In

Time Interval

- Compare the value of a data pair
- Four different intervals in time
- X-Y Plot



Excel Add-In

Archive Retrieval Parameters

- Load Parameter Set
- Save Parameter Set



Language Localization

Updated R*TIME Data Viewer
Language Specific DLL

- MMI_LANG_xxx.DLL

New Language Specific DLLs created
for

- Excel Add-In (EXCEL_LANG_xxx.DLL)
- Local Point Group
(GROUP_LANG_xxx.DLL)



“Under the Hood” Enhancements

Some changes that do not directly affect the displays:

- IP Address of socket used in display tracking
 - Fixes display tracking on workstations with multiple NIC cards
- VIDs from External Applications can use non-default service
 - Allows multi-unit data sets to be presented from external applications
 - Requires server update
- Trend Symbol printing adjusted
- Cursor not changed over disabled Poke Boxes or Function Buttons
- Static Relative time labels can now change dynamically



What's on the Horizon?

Future additions:

- Histogram option on Scrolling Trends
- Polar Plot
- Update chaining (already started!)
- Slider inputs
- Color selection entity (for trends, etc.)
- Non-rectangular poke regions
- Active-X control integration
- Display / Display System Validation



Project Objectives

- Leverage existing PEPSE model to analyze plant performance
- Use existing plant PI data to feed PEPSE models
- Validate PI data before analysis
- Display results
- Build and archive reports
- Minimize labor and licensing cost.